

REMARKS

Applicants respectfully request reconsideration of the present U.S. Patent application as amended herein. The undersigned attorney had an interview with the Examiner on March 5, 2003, in which the new claims were discussed. The Examiner indicated that a new search may need to be conducted.

Claims 15-16, 18-19 and 21-24 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,455,561 issued to Brown in view of U.S. Patent No. 5,731,832 issued to Ng. Claim 22 has been amended. New claims 25-31 have been added. Therefore, claims 15-16, 18-19, and 21-31 are pending.

Claim 25 recites a system that includes:

- a computer, the computer to transition from an active mode to an inactive mode in response to a predetermined period of computer inactivity; and
- a video camera coupled to the computer to detect motion, the video camera including:
 - a memory to store a plurality of frames corresponding to a view of an area proximate to the computer at different times; and
 - a processor coupled to the memory to compare two of the plurality of frames of the view to each other while the computer is in the inactive mode to determine whether there is motion proximate to the computer and to cause the computer to exit the inactive mode in response to detected motion proximate to the computer.

Claim 29 recites a method that includes:

- causing a computer to transition from an active mode to an inactive mode in response to a predetermined period of computer inactivity;
- receiving a first frame from a video camera coupled to the computer corresponding to a view proximate to the computer at a first time while the computer is in the inactive mode;
- receiving a second frame from the video camera corresponding to the view at a second time while the computer is in the inactive mode;
- determining whether there is motion proximate to the computer while the computer is in the inactive mode by determining whether the first frame differs from the second frame by a predetermined amount; and
- causing the computer to exit the inactive mode in response to motion detected proximate to the computer.

Thus, Applicants claim causing a computer to transition from an active mode to an inactive mode in response to a predetermined period of computer inactivity, detecting motion proximate to the computer while the computer is in the inactive mode, and causing the computer to exit the inactive mode in response to motion detected proximate to the computer.

Brown discloses a security surveillance system for monitoring a scene. Brown's surveillance system uses the size of the change between frames and the duration of the change to discriminate between nuisance changes and those changes that represent a breach of safety. See col. 4, lines 10-13. When the size of the change between frames is greater than a threshold, Brown's system monitors the duration of the change. When the duration of the change is greater than a threshold, Brown's system turns on a VCR (video cassette recorder) to record the monitored scene. See col. 6, lines 1-14. Once the scene returns to normal and the difference signal falls below the threshold value, the alarm condition is removed, and Brown's system turns off the VCR. See col. 6, lines 15-31.

Brown does not disclose causing a computer to transition from an active mode to an inactive mode in response to a predetermined period of computer inactivity. Brown does not disclose detecting motion proximate to the computer while the computer is in the inactive mode. Brown does not disclose causing the computer to exit the inactive mode in response to motion detected proximate to the computer. These limitations are recited in claims 25 and 29. Therefore, claims 25 and 29 are patentable over Brown.

Ng discloses comparing two video frames to determine motion. Ng does not disclose causing a computer to transition from an active mode to an inactive mode in response to a predetermined period of inactivity on the computer. Ng does not disclose detecting motion proximate to the computer while the computer is in the inactive mode. Ng does not disclose causing the computer to exit the inactive mode in response to motion detected proximate to the

computer. These limitations are recited in claims 25 and 29. Ng does not cure the deficiencies of Brown. Therefore, claims 25 and 29 are patentable over Brown and Ng.

Claims 26-28 and 30-31 are dependent claims and therefore include the limitations of their independent base claim in addition to adding further limitations of their own. Therefore, claims 26-28 and 30-31 are patentable over Brown and Ng for at least the same reasons as set forth above.

Claim 15 recites a computer system that includes:

- a memory to store a weighted average of brightness corresponding to one or more frames representing a view at different times; and

- a processor coupled to the memory to cause the computer system to transition from an active mode to an inactive mode in response to a predetermined period of computer inactivity and to compare the property of two frames to each other while the computer system is in the inactive mode and cause the computer system to exit the inactive mode in response to the weighted average of brightness of the two frames differing by a predetermined amount.

Claim 22 recites a method that includes:

- causing a computer system to transition from an active mode to an inactive mode in response to a predetermined period of computer inactivity;

- receiving a first frame corresponding to a view at a first time while in the inactive mode;

- determining a weighted average brightness for the first frame;

- receiving a second frame corresponding to a view at a second time while in the inactive mode;

- determining a weighted average brightness for the second frame; and

- causing the computer system to exit the inactive mode if the weighted average brightness for the first frame differs from the weighted average brightness for the second frame by a predetermined amount.

Thus, Applicants claim causing a computer system to transition from an active to inactive mode in response to a predetermined period of computer inactivity, comparing two frames while a computer system is in an inactive mode, and causing the computer system to exit the inactive mode in response to the weighted average brightness difference of the two frames.

As discussed above, Brown discloses a security surveillance system for monitoring a scene. Brown's surveillance system uses the size of the change between frames and the duration of the change to discriminate between nuisance changes and those changes that represent a breach of safety. See col. 4, lines 10-13. When the size of the change between frames is greater than a threshold, Brown's system monitors the duration of the change. When the duration of the change is greater than a threshold, Brown's system turns on a VCR (video cassette recorder) to record the monitored scene. See col. 6, lines 1-14. Once the scene returns to normal and the difference signal falls below the threshold value, the alarm condition is removed, and Brown's system turns off the VCR. See col. 6, lines 15-31.

Brown does not disclose causing a computer system to transition from an active to inactive mode in response to a predetermined period of computer inactivity, comparing two frames while a computer system is in an inactive mode, and causing the computer system to exit the inactive mode in response to the weighted average brightness difference of the two frames. When Brown's system detects a change in frames, the system enters another stage of processing to determine the duration of the change. Furthermore, Brown's system turns on and off a VCR depending on whether there is changed activity in the monitored scene that should be recorded.

Applicants submit that a VCR is not a computer. Official Notice was taken that it is well known in the art to program a VCR to control the recording of a video program. Applicants traverse. Applicants submit that being able to program a VCR to time the recording of a video program does not mean that a VCR is a computer. Therefore, Brown does not disclose causing a computer system to exit an inactive mode in response to the weighted average brightness difference of the two frames.

Ng discloses comparing two video frames to determine motion. The system disclosed by Ng compares video frames on a pixel-by-pixel basis. See col. 7, line 11-28. Ng does not

disclose causing a computer system to transition from an active to inactive mode in response to a predetermined period of computer inactivity. Ng does not disclose, teach, or suggest comparing video frames while a computer system is in an inactive mode. Ng does not disclose, teach, or suggest causing a computer system to exit an inactive mode in response to the weighted average of brightness of the two frames differing by a predetermined amount. Therefore, Ng does not cure the deficiencies of Brown.

There is no suggestion or motivation in the references to modify the video camera security surveillance systems of Ng and Brown into an apparatus for monitoring a computer system while the computer system is in an inactive state and causing the computer system to exit the inactive state in response to motion detected by a motion detection device.

Whether taken individually or in combination, Brown and Ng do not disclose, teach, or suggest comparing two frames while the computer system is in an inactive mode, and causing the computer system to exit the inactive state in response to the weighted average of brightness of the two frames differing by a predetermined amount. These features are expressly recited in claims 15 and 22. Therefore, the present invention as claimed in claims 15 and 22 is patentable over Brown and Ng.

Claims 16, 18, 19 and 21 depend from claim 15. Claims 23 and 24 depend from claim 22. Because dependent claims include the limitations of the claims from which they depend, Applicants submit that claims 16, 18, 19, 21, 23, and 24 are patentable over Brown and Ng for at least the reasons set forth above.

Conclusion

In view of the amendments and remarks set forth above, Applicants submit that claims 15-16, 18-19, and 21-31 are in condition for allowance and such action is respectfully solicited. The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Please charge any shortages and credit any overcharges to our Deposit Account number 02-2666.

Respectfully submitted,
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Date: 3/6/03

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